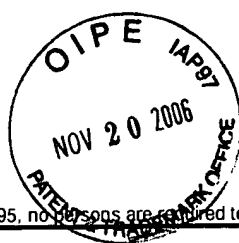


Doc Code: AP.PRE.REQ



PTO/SB/33 (07-05)

Approved for use through xx/xx/200x. OMB 0651-00xx
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

1857.0910001

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

Signature _____

Typed or printed name Jason D. Eisenberg

Application Number

10/607,193

Filed

June 27, 2003

First Named Inventor

Lev Ryzhikov

Art Unit

2872

Examiner

Joshua L. Pritchett

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

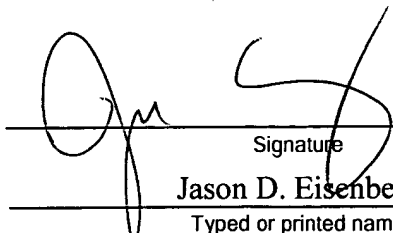
This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)
- ☐ attorney or agent of record.
Registration number _____
- ☒ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 43,447


Signature
Jason D. Eisenberg
Typed or printed name
(202) 371-2600
Telephone number
11/20/06
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Ryzhikov et al.

Appl. No.: 10/607,193

Filed: June 27, 2003

Confirmation No.: 5795

Art Unit: 2872

Examiner: Joshua L. Pritchett

Atty. Docket: 1857.0910001

**For: Relay Lens Used in an
Illumination System of a
Lithography System**

Arguments to Accompany the Pre-Appeal Brief Request for Review

Mail Stop AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby submit the following Arguments in support of the Pre-Appeal Brief Request for Review (Form PTO/SB/33). A Notice of Appeal is concurrently filed.

Arguments

Claims 18, 19, 21-26, and 28-31 were finally rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over WO 98/28644 to Schultz ("Schultz") (using U.S. Patent No. 6,366,410 as a translation). Claim 20 was finally rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Schultz in view of U.S. Published Patent Application No. 2002/0036832 to Schultz ("Schultz II").

Applicants' arguments in the Amendment and Reply under 37 C.F.R. § 1.111 filed on July 13, 2006, in response to the Office Action mailed April 14, 2006, were not properly considered or responded to in the final Office Action mailed August 22, 2006 ("the final Office Action"). The Examiner's response was legally deficient because the Examiner inappropriately applied Schultz. In particular, the Examiner has failed to properly construe the claimed features, the Examiner used impermissible hindsight in his application of Schultz, and the Examiner has destroyed the teaching in Schultz, as it is applied to the claimed invention, because Schultz teaches away from the claimed invention.

The Examiner used this inappropriate rejection in an attempt to show that Schultz teaches or suggests the element of “a third lens group consisting of a single lens element made from a single material having a single index of refraction that receives the beam of radiation from the second lens group and controls field characteristics of the beam of radiation at a patterning device plane,” as recited in independent claims 18 and “a third lens group consisting of a single lens made from one material having one index of refraction and having a spherical receiving surface and an aspherical transmitting surface,” as recited in independent claim 31.

In sum, the rejection in view of Schultz failed to properly construe the claimed features, was impermissible because the Examiner used hindsight, and/or was inappropriate because Schultz teaches away from the claimed invention. Thus, for at least these reasons the Examiner has failed to establish a *prima facie* case of obviousness for the claimed invention, since all the claimed features must be taught or suggested by the prior art M.P.E.P. § 2143.03, *citing In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974), which they are not.

The Examiner failed to properly construe the claimed features

Claims 18 and 31 both use the transitional phrase “consisting of,” which is a very limiting transitional phrase. *See, e.g.*, M.P.E.P. Section 2111.03; *Vehicular Technologies Corp. v. Titan Wheel Int’l, Inc.*, 212 F.3d 1377, 53 U.S.P.Q.2d 1841 (Fed. Cir. 2000) (stating “consisting of” means I claim what follows and nothing else, allowing for restriction and exclusion for that element); *AFG Industries, Inc. v. Cardinal IG Company, Inc.*, 239 F.3d 1239, 57 U.S.P.Q.2d 1776 (Fed. Cir. 2001) (stating that “consisting of” excludes any elements, steps, or ingredients not specified in the claim). Through use of this transitional phrase, the Examiner must find a reference that identically teaches a feature associated with the term. In claims 18 and 31, the claimed feature including this transitional phrase is that a third lens group consists of **a single lens**. However, the Examiner has failed to apply any reference that teaches or suggests this exact feature. This is because Schultz specifically teaches, at col. 3, line 63 to col. 4, line 2, that the inventors developed a third lens group with field lens characteristics **with a minimum of two lenses**. Schultz II is not used to teach or suggest this distinguishing feature of claims 18 and 31, nor does it teach or suggest this feature. Thus, Schultz II does nothing to cure the deficiencies of

Schultz. Therefore, the applied references cannot be used to establish a *prima facie* case of obviousness for these claims.

There is No Motivation to Apply Schultz Absent Impermissible Hindsight

There is no motivation to apply Schultz, at least in the new way the Examiner has now applied Schultz in the final Office Action, absent impermissible hindsight. This can be partially shown through the Examiner's repeated use of Schultz in previous rejections without using this new argument (which also destroys the teaching of Schultz, as discussed below). Apparently guided by Applicants' previous arguments, the Examiner withdrew all previous rejections and applied Schultz in this new and impermissible way. For example, on page 3 of the final Office Action, the Examiner relies on unsubstantiated conclusions to meet the claimed invention of claims 18 and 31 when the Examiner states:

It is within the skill of one of ordinary skill in the art to classify the two lenses as separate lens groups absent any specific definition of a lens group. It would have been obvious ... to reclassify the lens groups of Schulz (sic) for the purpose of succinctly identifying the optical elements associated with the third lens group to more accurately convey the specific optical element in question when addressing the third lens group.

It appears to the Applicants that the Examiner developed this argument after reading Applicants' previous arguments and Applicants' instant specification, i.e., through hindsight. Thus, there is no motivation to apply Schultz as done in the final Office Action absent the use of impermissible hindsight by the Examiner. *Interconnect Planning Corp. v Feil*, 777 F.2d 1132, 227 U.S.P.Q. 543 (Fed. Cir. 1985) (stating that when prior art references require selective combination to render obvious a subsequent invention, it is an error to reconstruct the patentee's claimed invention using the patentee's claims as a blueprint, there must be other motivation.); *In re Gorman*, 933 F.2d 982, 18 U.S.P.Q.2d 1885 (Fed. Cir. 1991) (stating it was impermissible to use applicant's structure as a template to select elements from a reference or references to fill in the gaps); *Para-Ordnance Manufacturing, Inc. v. SGS Importers International, Inc.*, 73 F.3d 1085, 37 U.S.P.Q.2d 1237, 1239 (Fed. Cir. 1995) ("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor."). Schultz II does nothing to cure the deficiencies of Schultz. Thus, the Examiner has failed to establish a *prima facie* case of obviousness.

The Examiner has destroyed the teaching in Schultz because Schultz teaches away from the claimed invention

The Examiner's application of Schultz to the claimed invention has destroyed the teaching of Schultz because Schultz teaches away from the claimed invention. *See, e.g.*, M.P.E.P. Sections 2141.02 and 2145(X)(D)(2). For example, Schultz specifically teaches:

The design of the **field lens group 300** is decisive for matching. In the example, it is reduced to **the minimum of two lenses**, the collecting lens 15, 16 and the divergent lens 17, 18. The aspheric element then required--as otherwise many spherical elements would be required--is the surface 17. The main beam heights are greater than the marginal ray heights in this region.

Schultz, col. 3, line 63 to col. 4, line 2 (emphasis added).

However, the claims recite, for example (emphasis added),

18. ...a third lens group **consisting of a single lens element** made from a single material having a single index of refraction that receives the beam of radiation from the second lens group and **controls field characteristics of the beam of radiation** at a patterning device plane...

31. ...a third lens group **consisting of a single lens** made from one material having one index of refraction and having a spherical receiving surface and an aspherical transmitting surface...

Thus, Schultz teaches at length of the inventors' non-trivial reduction of its field lens group 300 to a minimum of two lenses. Each of the two lenses is required to perform a particular respective operation in the processing of light (e.g., collection and diverging of light). This is because Schultz is directed to a REMA found in an illumination system of a lithography system that processes light, such that the light has the proper optical characteristics to most optimally illuminate a reticle. However, claims 18 and 31 respectively recite, again emphasizing the use of the very restrictive transitional phrase "consisting of," "a third lens group consisting of a single lens/single lens element." Thus, under the prevailing patent law, the Examiner has improperly ignored this teaching in Schultz. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 U.S.P.Q. 416 (Fed. Cir. 1986) (stating a reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention much be considered); *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 U.S.P.Q.2d 1923 (Fed. Cir. 1990) (stating the closest prior art should not be used because the closest prior art "would likely discourage the art worker from attempting the substitution suggested by the [inventor/patentee]."); *In re Gurley*, 27 F.3d 551, 31 U.S.P.Q.3d 1130 (Fed. Cir. 1994) ("A reference may be said to

teach away when a person of ordinary skill, upon reading the reference, ...would be led in a direction divergent from the path that was taken by the applicant.”)

Also, Applicants do not believe a person having ordinary skill in the art at the time of the invention would have found it obvious to remove one optical element from the third system in Schultz, or as the Examiner now suggests, to rename the elements in the third system in Schultz, as there is no motivation to make this change found in Schultz. Nothing in Schultz teaches or suggests a skilled artisan could or should make this modification, as Schultz actually teaches away from wanting to do this.

Schultz II does nothing to cure the deficiencies of Schultz. Thus, the Examiner has failed to establish a *prima facie* case of obviousness.

Conclusion

The Examiner has thus failed to establish a *prima facie* case of obviousness for at least the reasons the Examiner failed to properly construe the claimed features, the rejection was impermissible because the Examiner used hindsight, and/or the rejection was inappropriate because Schultz teaches away from the claimed invention.

Thus, Applicants assert that the Examiner's reliance upon Schultz and Schultz II in supporting an obviousness rejection for the pending claims is factually and legally unfounded. Therefore, Applicants respectfully request reconsideration and withdrawal of rejections under 35 U.S.C. § 103(a) over Schultz and Schultz in view of Schultz II for all claims in the pending application.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg
Attorney for Applicants
Registration No. 43,447

Date: 11/20/06

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
597525_1.DOC